

Appendix G

Wildlife and Vegetation

Introduction

BLM has management responsibilities in 59 of Florida's 67 counties. This diverse land base reflects the extraordinary diversity of Florida's wildlife and botanical resources. To focus the EIS, only species known or likely to occur in areas where BLM-permitted actions are reasonably foreseeable were included in the analysis.

Methodology

To determine which species might be affected by land use decisions proposed in the RMP, several sources were used. The current Florida Natural Areas Inventory (FNAI) element occurrence records for the state were merged with portions of the Florida Game and Freshwater Fish Commission (FGFWFC) occurrence records. These point data were transferred to a GIS system, which also contained a map of the over 900 FMO tracts. All sensitive species records within a five-mile radius of all FMO tracts in areas with high potential for mineral development were then consolidated into a preliminary list of potentially affected species. Because of the inherent limitations of point data, additional sources were used as a check. A county distribution data base was developed in cooperation with Fish and Wildlife Information Systems. The species list was compared with these county distribution records, species lists for the Blackwater River State Forest and the Withlacoochee State Forest, pertinent environmental assessments, and in the case of surface tracts site, specific surveys, field visits, and personal communication with knowledgeable persons familiar with the wildlife and botanical resources of the area.

General habitat parameters were also used to assess the potential for and extent of impacts to a

species or group of species, and to help predict occurrence of species on FMO. Vegetation communities were mapped on FMO using the Florida Game and Freshwater Fish Commission (FGFWFC) land cover map, which is based on LANDSAT Thematic Mapper imagery. The land cover map was imported into GIS and the land cover types developed by FGFWFC were adopted. These land cover types are described below. The acreages of each of these cover types on FMO is provided in Table 3-2 in the main body of the document.

As the analysis progressed, some wildlife species were dropped from further consideration, either because the species was not expected to occur on FMO where mineral resource development was reasonably foreseeable or the species was not expected to be impacted by standard management practices common to all alternatives. Tables G-1 and G-2 list those wildlife and plant species considered for analysis. Wildlife species names not in bold type were dropped from full analysis in the document. A short discussion of the species dropped from full analysis is provided at the end of Table G-1. All of the plant species on the list were addressed to some extent in the document.

Descriptions of Plant Communities

The following plant community descriptions were adopted from the FGFWFC and were originally described by Terry Gilbert (1992).

Upland Plant Communities

Coastal Strand. The coastal strand occurs on well-drained sandy soils and includes the typically zoned vegetation of the upper beach, nearby dunes, or coastal rock formations. This

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community generally occurs in a long, narrow band parallel to the open waters of the Atlantic Ocean or Gulf of Mexico, and along the shores of some saline bays or sounds in both north and south Florida. This community occupies areas formed along high energy shorelines, and is strongly affected by wind, waves, and salt spray. Vegetation within this community typically consists of low growing vines, grasses, and herbaceous plants with very few small trees or large shrubs. Pioneer or early successional herbaceous vegetation characterizes the foredune and upper beach, while a gradual change to woody plant species occurs in more protected areas landward. Typical plant species include beach morning glory, railroad vine, sea oats, saw palmetto, spanish bayonet, yaupon holly, wax myrtle, along with sea grape, cocoplum, and other tropicals in southern Florida. The coastal strand community only includes the zone of early successional vegetation which lies between the upper beach, and more highly developed communities landward. Adjacent or contiguous community types such as xeric oak scrubs, pinelands, or hardwood forests would therefore be classified and mapped respectively.

Dry Prairies. Dry prairies are large native grass and shrublands occurring on very flat terrain interspersed with scattered cypress domes and strands, bayheads, isolated freshwater marshes, and hardwood hammocks. This community is characterized by many species of grasses, sedges, herbs, and shrubs, including saw palmetto, fetterbush, staggerbush, tar flower, gallberry, blueberry, wiregrass, carpet grasses, and various bluestems. The largest areas of these treeless plains historically occurred just north of Lake Okeechobee, and they were subject to annual or frequent fires. Many of these areas have been converted to improve pasture. In central and south Florida, palmetto prairies, which consist of former pine flatwoods where the overstory trees have been thinned or removed, are also included in this category. These sites contain highly scattered pines which cover less than 10 to 15 percent of an area.

Pinelands. The pinelands category includes north and south Florida pine flatwoods, south Florida pine rocklands, and commercial pine plantations. Pine flatwoods occur on flat sandy terrain where the overstory is characterized by longleaf pine, slash pine, or pond pine. Generally, flatwoods dominated by longleaf pine occur on well-drained sites, while pond pine is found in poorly drained areas, and slash pine occupies intermediately or moderately moist areas. The understory and groundcover within these three communities are somewhat similar and include several common species such as saw palmetto, gallberry, wax myrtle, and a wide variety of grasses and herbs. Generally wiregrass and runner oak dominate longleaf pine sites, fetterbush and bay trees are found in pond pine areas, while saw palmetto, gallberry, and rusty lyonia occupy slash pine flatwoods sites. Cypress domes, bayheads, titi swamps, and freshwater marshes are commonly interspersed in isolated depressions throughout this community type, and fire is a major disturbance factor. An additional pine flatwoods forest type occurs in extreme south Florida on rocklands where the overstory is the south Florida variety of slash pine, and tropical hardwood species occur in the understory. Scrubby flatwoods is another pineland type which occurs on drier ridges, and on or near old coastal dunes. Longleaf pine or slash pine dominate the overstory, while the groundcover is similar to the xeric oak scrub community. Commercial pine plantations are also reluctantly included in the pinelands association. This class includes predominately planted slash pine, although longleaf pine and loblolly pine tracts also occur. Sandpine plantations, which have been planted on severely site prepared sandhill sites in the north Florida panhandle, are also included in this category. An acceptable accurate separation of areas of densely stocked native flatwoods and older planted pine stands with a closed canopy was not consistently possible.

Sand Pine Scrub. Sand pine scrub occurs on extremely well-drained, sorted, sterile sands deposited along former shorelines and islands of ancient seas. This xeric plant community is dominated by an overstory of sand pine and has

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an understory of myrtle oak, Chapman's oak, sand-live oak, and scrub holly. Ground cover is usually sparse to absent, especially in mature stands, and rosemary and lichens occur in some open areas. Sites within the Ocala National Forest which have an overstory of direct seeded sand pine, and an intact understory of characteristic xeric scrub oaks, are also included in this category. Fire is an important ecological management tool, and commonly results in even-aged stands within regenerated sites. The distribution of this community type is almost entirely restricted to within the state of Florida.

Sandhill. Sandhill communities occur in areas of rolling terrain on deep, well-drained, white to yellow, sterile sands. This xeric community is dominated by an overstory of scattered longleaf pine, along with an understory of turkey oak and bluejack oak. The park-like ground cover consists of various grasses and herbs, including wiregrass, partridge pea, beggars tick, milk pea, queen's delight, and others. Fire is an important factor in controlling hardwood competition and other aspects of sandhill ecology. Although many of these sites throughout the state have been modified through the selective or severe cutting of longleaf pine, these areas are still included in the sandhill category.

Xeric Oak Scrub. Xeric oak scrub is a xeric hardwood community typically consisting of clumped patches of low growing oaks interspersed with bare areas of white sand. This community occurs on areas of deep, well-washed, sterile sands, and it is the same understory complex of scrubby oaks and other ground cover species. Also included in this category are sites within the Ocala National Forest which have been clearcut, and are sometimes dominated during the first one to five years by the xeric oak scrub association. The xeric oak scrub community is dominated by myrtle oak, Chapman's oak, sand-live oak, scrub holly, scrub plum, scrub hickory, rosemary, and saw palmetto. Fire is important in setting back plant succession and maintaining viable oak scrubs.

Mixed Hardwood Pine Forests. This community is the southern extension of the Piedmont southern mixed hardwoods, and occurs mainly on the clay soils on the northern Panhandle. Younger stands may be predominantly pines, while a complex of various hardwoods become co-dominated as the system matures over time through plant succession. The overstory consists of shortleaf and loblolly pine, American beech, mockernut hickory, southern red oak, water oak, American holly, and dogwood.

Also included in this category are other upland forests that occur statewide which contain a mixture of conifers, and hardwoods as the co-dominant overstory component. These communities contain longleaf pine, slash pine, and loblolly pine in mixed association with live oak, laurel oak, and water oak, together with other hardwood species characteristic of the upland hardwood hammocks and forests class.

Hardwood Hammocks and Forests. This class includes the major upland hardwood associations that occur statewide on fairly rich sandy soils. Variations in species composition, and the local or spatial distributions of these communities are due in part to differences in soil moisture regimes, soil type, and geographic location within the state. The major variations within this association are mesic hammocks, xeric hammocks, coastal and hydric hammocks, and live oak or cabbage palm hammocks.

The mesic hammock community represents the climax vegetation type within many areas of northern and central Florida. Characteristic species in the extreme north include American beech, southern magnolia, Shumard oak, white oak, mockernut hickory, pignut hickory, sourgum, basswood, white ash, mulberry, and spruce pine. Mesic hammocks of the peninsula are less diverse due to the absence of hardwood species which are adapted to more northerly climates, and are characterized by laurel oak, hop hornbeam, blue beech, sweetgum, cabbage palm, American holly, and southern magnolia.

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Xeric hammocks occur on deep, well-drained, sandy soils where fires have been absent for long periods of time. These open, dry hammocks, contain live oak, sand-live oak, bluejack oak, blackjack oak, southern red oak, sand-post oak, and pignut hickory.

Coastal and hydric hammocks are relatively wet hardwood forests that are found between uplands and true wetlands. These sometimes seasonally wet forests are associated with some non-alluvial peninsula streams, scattered broad lowlands, and are also found in a narrow band along parts of the Gulf and Atlantic coasts where they often extend to the edge of coastal salt marshes. These communities contain water oak, red maple, Florida elm, cabbage palm, red cedar, blue-beech, and sweetgum. Live oak and cabbage palm hammocks are often found bordering large lakes and rivers, and are distributed throughout the prairie region of south central Florida and extend northward in the St. John's River basin. These communities may occur as mixed stands of oak and palm, or one of these species can completely dominate an area.

Tropical Hardwood Hammock. These upland hardwood forests occur in extreme south Florida and are characterized by tree and shrub species on the northern edge of a range which extends southward into the Caribbean. These communities are sparsely distributed along coastal uplands south of a line from about Vero Beach on the Atlantic coast to Sarasota on the Gulf coast. They occur on many tree islands in the Everglades and on uplands throughout the Florida Keys. This cold-intolerant tropical community has very high plant species diversity, sometimes containing over 35 species of trees and about 65 species of shrubs. Characteristic tropical plants include strangler fig, gumbo-limbo, mastic, bustic, lancewood, ironwoods, poisonwood, pigeon plum, Jamaica dogwood, and Bahama lysiloma. Live oak and cabbage palm are also sometimes found within this community. Tropical hammocks in the Florida keys may also contain several plants, including lignum vitae, mahogany, thatch palms, and manchineel, which are extremely rare within the United States.

Wetland Plant Communities

Coastal Salt Marshes. These herbaceous and shrubby wetland communities occur statewide in brackish waters along protected low energy estuarine shorelines of the Atlantic and Gulf coasts. The largest continuous areas of salt marsh occur north of the range of mangroves, and border tidal creeks, bays and sounds. Salt marshes are sometimes interspersed within mangrove areas, and also occur as a transition zone between freshwater marshes and mangrove forests such as in the Ten Thousand Islands area along the southwest Florida coast. Plant distribution within salt marshes is largely dependent on the degree of tidal inundation, and many large areas are completely dominated by one species. Generally, smooth cordgrass typically occupies the lowest elevations immediately adjacent to tidal creeks and pools, while black needlerush dominates less frequently inundated zones. The highest elevations form transitional areas characterized by glasswort, saltwort, saltgrass, sea ox-eye daisy, marsh elder, and saltbush. For the purposes of this project, cordgrass, needlerush, and transitional or high salt marshes are collectively mapped as this single category.

Freshwater Marsh and Wet Prairie. These wetland communities are dominated by a wide assortment of herbaceous plant species growing on sand, clay, marl, and organic soils in areas of variable water depths and inundation regimes. Generally, freshwater marshes occur in deeper, more strongly inundated situations and are characterized by tall emergents, and floating leafed species. Freshwater marshes occur within depressions, along broad, shallow lake and river shorelines, and are scattered in open areas within hardwood and cypress swamps. Also, other portions of freshwater lakes, rivers, and canals which are dominated by floating-leaved plants such as lotus, spatterdock, duck weed, and water hyacinths are included in this category. Wet prairies commonly occur in shallow, periodically inundated areas and are usually dominated by aquatic grasses, sedges, and their associates. Wet prairies occur as scattered, shallow depressions

within dry prairie areas and on marl prairie areas in south Florida. Also included in this category are areas in southwest Florida with scattered dwarf cypress having less than 20 percent canopy coverage, and a dense groundcover of freshwater marsh plants. Marshes and wet prairies are dominated by various combinations of pickerel weed, sawgrass, maidencane, arrowhead, fire flag, cattail, spike rush, bulrush, white water lily, water shield, and various sedges. Many marsh or wet prairie types, such as sawgrass marsh or maidencane prairie, have been described and so-named based on their dominant plant species.

Cypress Swamp. These regularly inundated wetlands form a forested border along large rivers, creeks, and lakes, or occur in depressions as circular domes or linear strands. These communities are strongly dominated by either bald cypress or pond cypress, with very low numbers of scattered black gum, red maple, and sweetbay. Understory and ground cover are usually sparse due to frequent flooding but sometimes include such species as buttonbush, lizard's-tail, and various ferns.

Hardwood Swamp. These wooded wetland communities are composed of either pure stands of hardwoods, or occur as a mixture of hardwoods and cypress. This association of wetland-adapted trees occurs throughout the state on organic soils and forms the forested floodplains of non-alluvial rivers, creeks, and broad lake basins. Tree species include a mixed overstory containing black gum, water tupelo, bald cypress, dahooon holly, red maple, swamp ash, cabbage palm, and sweetbay.

Bottomland Hardwoods. These wetland forests are composed of a diverse assortment of hydric hardwoods which occur on the rich alluvial soils of silt and clay deposited along several Panhandle rivers including the Apalachicola. These communities are characterized by an overstory that includes water hickory, overcup oak, swamp chestnut oak, river birch, American sycamore, red maple, Florida elm, bald cypress, blue beech, and swamp ash.

Bay Swamp. These hardwood swamps contain broadleaf evergreen trees that occur in shallow, stagnant drainages or depressions often found within pine flatwoods, or at the base of sandy ridges where seepage maintains constantly wet soils. The soils, which are usually covered by an abundant layer of leaf litter, are mostly acidic peat or muck which remain saturated for long periods but over which little water level fluctuation occurs. Overstory trees within bayheads are dominated by sweetbay, swamp bay, and loblolly bay. Depending on the location within the state, other species including pond pine, slash pine, blackgum, cypress, and Atlantic white cedar can occur as scattered individuals, but bay trees dominated the canopy and characterized the community. Understory and ground cover species may include dahooon holly, wax myrtle, fetterbush, greenbriar, royal fern, cinnamon fern, and sphagnum moss.

Shrub Swamp. Shrub swamps are wetland communities dominated by dense, low-growing, woody shrubs or small trees. Shrub swamps are usually characteristic of wetland areas that are experiencing environmental change, and are early to mid-successional in species complement and structure. These changes are a result of natural or man-induced perturbations due to increased or decreased hydroperiod, fire, clear cutting or land clearing, and siltation. Shrub swamps statewide may be dominated by one species, such as willow, or an array of opportunistic plants may form a dense, low canopy. Common species include willow, wax myrtle, primrose willow, buttonbush, and saplings of red maple, sweetbay, black gum, and other hydric tree species indicative of wooded wetlands. In northern Florida, some shrub swamps are a fire-maintained subclimax of bay swamps. These dense shrubby areas are dominated by black titi, swamp cyrilla, fetterbush, sweet pepperbush, doghobble, large gallberry, and myrtle-leaf holly.

Mangrove Swamp. These dense, brackish water swamps occur along low-energy shorelines and in protected, tidally influenced bays of southern Florida. This community is composed of freeze-intolerant tree species that are distributed south of

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a line from Cedar Key on the Gulf coast to St. Augustine on the Atlantic coast. These swamp communities are usually dominated by red, black, and white mangroves that progress in a sere from seaward to landward areas, respectively, while buttonwood trees occur in areas above high tide. Openings and transitional areas in mangrove swamps sometimes contain glasswort, saltwort, and other salt marsh species. All three major species of mangroves are mapped as a single class with no effort made to differentiated these species into separate zones.

Aquatic

Aquatic. This community is comprised of the open water areas of inland freshwater lakes, ponds, rivers and creeks, and the brackish and saline waters of estuaries, bays, tidal creeks, the Gulf of Mexico, and the Atlantic Ocean.

Disturbed Communities

Grassland. These are upland communities where the predominant vegetative cover is very low growing grasses and forbs on intensively managed sites such as improved pastures, lawns, golf courses, road shoulders, cemeteries, or weedy, fallow agricultural fields, etc. This very early successional category includes all sites with herbaceous vegetation during the time period between bare ground, and the shrub and brush stage.

Shrub and Brushland. This association includes a variety of situations where natural upland community types have been recently disturbed through clear-cutting commercial pinelands, land clearing, or fire, and are recovering through natural successional processes. This type could be characterized as an early condition of old field succession, and the community is dominated by various shrubs, tree saplings, and lesser amounts of grasses and herbs. Common species include wax myrtle, saltbush, sumac, elderberry, saw palmetto, blackberry, gallberry, fetterbush, staggerbush, broomsedge, dog fennel, together with oak, pine and other tree seedlings or saplings.

Exotic Plant Communities. These communities are upland and wetland areas dominated by non-native trees that were planted or have escaped and have invaded native plant communities. These exotics include melaleuca, Australian pine, Brazilian pepper, and eucalyptus.

Barren. This class includes highly reflective unvegetated areas such as roads, beaches, active strip mines, tilled agricultural sites, and cleared land on sandy soils. Unvegetated sites in urban areas which include rooftops of buildings, athletic fields, landfills, and parking lots, etc., are also included in this category. Vegetated tracts within urban areas are classified and mapped according to their predominate vegetation cover or plant community type.

The following special status wildlife species are known or are expected to occur on BLM-administered surface tracts or federal mineral ownership. Those species which may be affected by the alternatives discussed in this document are highlighted in bold type. Species names not highlighted in bold type were considered but dropped from full analysis, either because the species was not expected to occur in areas where reasonably foreseeable development is expected, or the species was not expected to be affected by standard management practices common to all alternatives. Species considered but dropped from full analysis are discussed in a footnote to this table.¹

Table G-1. Wildlife Species Considered for Analysis

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida	Status on Surface Tracts and High Potential Federal Mineral Ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Fish								
Gulf sturgeon (<i>Acipenser oxyrinchus desotoi</i>)	T	SSC	eastern Gulf of Mexico with breeding occurring in major Gulf river systems. Spawning is believed to occur in area of deep water and clean rock, gravel or sand bottoms.	primarily panhandle river systems	Potential to occur in the Blackwater River	Not expected	Not expected	Not expected
Blackmouth shiner (<i>Notropis melanostomus</i>)	C2	E	shallow blackwater pools with no current	Pond Creek, localities in the Blackwater and Shoal rivers in the western panhandle	Potential to occur downstream of FMO	Not expected	Not expected	Not expected
Bluenose shiner (<i>Pteronotropis wejake</i>)	-	SSC	quiet, often weedy waters, particularly with deeper pools	western panhandle and middle of St. Johns River drainage in eastern peninsular Florida	Potential to occur downstream of FMO	Not expected	Not expected	Not expected
Crystal darter (<i>Ammocrypta asprella</i>)	C2	T	sand and gravel bars in large rivers	upper reaches of the Escambia River in extreme western panhandle	Potential to occur downstream of FMO	Not expected	Not expected	Not expected
Harlequin darter (<i>Etheostoma histrio</i>)	-	SSC	variety of river habitats	few records in Escambia River in extreme western panhandle	Potential to occur downstream of FMO	Not expected	Not expected	Not expected

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida	Status on Surface Tracts and High Potential Federal Mineral Ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Okaloosa darter (<i>Etheostoma okaloosae</i>)	E	E	low to moderate sized groundwater-fed streams	boggy and rocky bayous in Okaloosa and Walton counties, majority of habitat on Eglin Air Force Base	Potential to occur down-stream of FMO	Not expected	Not expected	Not expected
Saltmarsh topminnow (<i>Fundulus jenkinsi</i>)	-	SSC	brackish and salt water marshes	extreme western panhandle	Potential to occur down-stream of FMO	Not expected	Not expected	Not expected
Amphibians								
Flatwoods salamander (<i>Ambystoma cingulatum</i>)	C2	-	pine flatwoods/wiregrass communities near ponds without predatory fish	panhandle and very northern peninsula	Confirmed	Not expected	Not expected	Potential
Gopher frog (<i>Rana capito</i>)	C2	SSC	xeric pine and scrub communities with ponds or ephemeral wetlands, with gopher tortoise	panhandle and northern 2/3 of peninsula	Confirmed	Confirmed	Potential	Confirmed
Pine Barrens treefrog (<i>Hyla andersonii</i>)	-	SSC	seepage slopes and bogs	four counties in the western Panhandle, including Santa Rosa, Okaloosa, Walton and Holmes counties	Confirmed	Not expected	Not expected	Not expected

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida	Status on Surface Tracts and High Potential Federal Mineral Ownership		
					Oil & Gas	Limestone	Phosphate
Reptiles							
Alligator snapping turtle (<i>Macrochelys temminckii</i>)	C2	SSC	deep rivers, canals, lakes and swamps	gulf river drainages	Potential	Not expected	Not expected
American alligator (<i>Alligator mississippiensis</i>)	T (S/A)	SSC	rivers, swamps, lakes and ponds	state-wide in suitable habitat	Potential	Confirmed	Potential
Atlantic green sea turtle (<i>Chelonia mydas</i>)	E	E	pelagic, nesting on coastal beaches	limited nesting, primarily on eastern coast, has been recorded at Eglin Air Force Base	Potential	Not expected	Potential
Atlantic loggerhead sea turtle (<i>Caretta caretta</i>)	T	T	pelagic, nesting on coastal beaches	majority of coastal beaches, highest densities from Brevard County south to Broward County	Potential	Not expected	Confirmed
Eastern Indigo snake (<i>Drymarchon couperi</i>)	T	T	variety of upland and wetland habitats	state-wide in suitable habitat	Confirmed	Confirmed	Potential
Florida pine snake (<i>Pituophis melanoleucus mugitus</i>)	C2	SSC	xeric pine and scrub communities	all but southern 1/3 of peninsula	Potential	Confirmed	Potential
Florida scrub lizard (<i>Sceloporus woodi</i>)	C2	-	pine scrub, xeric oak scrub, and sandhills	coastal and interior scrub habitats	Not expected	Potential	Not expected
Gopher tortoise (<i>Gopherus polyphemus</i>)	C2	SSC	upland sandy xeric habitats	state-wide in suitable habitat	Confirmed	Confirmed	Potential

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida	Status on Surface Tracts and High Potential Federal Mineral Ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Short-tailed snake (<i>Stenorrhina extenuatum</i>)	C2	-	longleaf pine/turkey oak associations, occasionally in upland hammock and sand pine scrub	west central peninsula	Not expected	Potential	Not expected	Not expected
Birds								
Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	T	E	variety of habitats	wintering throughout Florida, particularly along coast	Confirmed	Potential	Potential	Confirmed
Bald eagle (<i>Haliaeetus leucocephalus</i>)	E	T	near lakes, rivers and coast	state-wide	Confirmed	Confirmed	Potential	Confirmed
Eastern brown pelican (<i>Pelecanus occidentalis</i>)	-	SSC	coastal beaches, mangrove swamps and islands	entire coast	Potential	Not expected	Not expected	Confirmed
Florida burrowing owl (<i>Speotyto cunicularia</i>)	-	SSC	breeding on high sandy ground with low ground cover	breeding in southern 1/2 of peninsula	Not expected	Not expected	Potential	Not expected
Florida sandhill crane (<i>Grus canadensis pretensis</i>)	-	T	dry prairies, pastures, marshes	state-wide	Potential	Potential	Potential	Not expected
Florida scrub jay (<i>Aphelocoma coerulescens coerulescens</i>)	T	T	scrub communities with oak component	peninsular Florida in suitable habitat	Not expected	Potential	Potential	Confirmed
Least tern (<i>Sterna antillarum</i>)	-	T	open flat beaches devoid of vegetation	generally coastal	Not expected	Not expected	Potential	Potential

Table G-1. Continued.

Animal Name	Federal Status ¹	State Status ²	Habitat	Distribution in Florida	Status on Surface Tracts and High Potential Federal Mineral Ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Limpkin* (<i>Aramus guarauna</i>)	-	SSC	wetlands	eastern panhandle and peninsula	Not expected	Confirmed	Potential	Potential
Little blue heron* (<i>Egretta caerulea</i>)	-	SSC	wetlands	state-wide, breeding primarily in southern peninsula coast and islands	Potential	Confirmed	Potential	Potential
Osprey (<i>Pandion haliaetus</i>)	-	SSC in Monroe County	near lakes, rivers and coast	state-wide	Confirmed	Confirmed	Potential	Confirmed
Piping plover (<i>Charadrius melanotos</i>)	T	T	open sand, tidal and mud flats often with freshwater inlets	winters on Gulf and Atlantic coasts	Not expected	Not expected	Not expected	Potential
Red-cockaded woodpecker (<i>Picoides borealis</i>)	E	T	mature, open park-like stands of pine, often longleaf pine with red-heart disease	throughout state in suitable habitat	Confirmed	Confirmed	Not expected	Not expected
Southeastern American kestrel (<i>Falco sparverius paulus</i>)	C2	T	open habitats with perches for hunting	all but extreme tip of southern peninsula and Keys	Confirmed	Confirmed	Potential	Not expected
Southeastern snowy plover (<i>Charadrius alexandrinus tenuirostris</i>)	C2	T	open sand and tidal flats often with freshwater inlets	gulf coast beaches	Not expected	Not expected	Not expected	Potential
Snowy egret* (<i>Egretta thula</i>)	-	SSC	wetlands	state-wide, rare breeder in panhandle	Confirmed non-breeding	Confirmed breeding	Potential	Potential
Tri-colored heron* (<i>Egretta tricolor</i>)	-	SSC	wetlands	state-wide, infrequent breeder west of the Apalachicola drainage	Confirmed non-breeding	Confirmed breeding	Potential	Potential

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida				Status on Surface Tracts and High Potential Federal Mineral Ownership			
				Oil & Gas	Limestone	Phosphate	Surface Tracts	Potential	Confirmed	Potential	Potential
Wood stork (<i>Mycteria americana</i>)	E	E	wetlands	state-wide, breeding in peninsula							
Mammals											
Choctawhatchee beach mouse (<i>Peromyscus polionotus allophrys</i>)	E	E	mature coastal beach dunes	currently limited to three areas: Topsail Hill area and Grayton Beach Recreation Area in Walton County, and Shell Island in Bay County.				Confirmed	Not expected	Not expected	Not expected
Eastern chipmunk (<i>Tamias striatus</i>)	-	SSC	hardwood forest and mixed hardwood pine forest	northern portions of five counties in the western Panhandle				Confirmed	Not expected	Not expected	Not expected
Florida black bear (<i>Ursus americanus floridanus</i>)	C2	T**	a variety of habitats, primarily forested areas	state-wide in suitable habitat				Confirmed	Potential	Potential	Potential
Florida mouse (<i>Podomys floridanus</i>)	C2	SSC	fire maintained xeric uplands on sandy soils, including sandhills, scrub and scrubby flatwoods	central peninsula and Atlantic coast				Not expected	Potential	Potential	Confirmed
Florida panther (<i>Felis concolor coryi</i>)	E	E	variety of habitats	reproducing only in southern Florida				Potential	Not expected	Not expected	Not expected
Lower Keys marsh rabbit (<i>Sylvilagus palustris hefneri</i>)	E	E	marshes and areas with low vegetative cover	lower keys, from Big Pine to Boca Chica				Not expected	Not expected	Not expected	Potential

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida			Status on Surface Tracts and High Potential Federal Mineral Ownership		
				Oil & Gas	Limestone	Phosphate	Oil & Gas	Limestone	Phosphate
Perdido Key beach mouse (<i>Peromyscus polionotus trisyllaphalis</i>)	E	E	sand dunes along Gulf coast beaches	Perdido Key, Gulf Islands National Seashore			Confirmed	Not expected	Not expected
Sherman fox squirrel (<i>Sciurus niger shermani</i>)	C2	SSC	mature longleaf pine/turkey oak sandhills and flatwoods, ideally with access to live oak forest	eastern panhandle to central Florida			Not expected	Confirmed	Potential
Silver rice rat (<i>Oryzomys argentatus</i>)	E	E	upland to marine interface, buttonwood transition zones, salt flats and coastal strand	Lower Keys			Not expected	Not expected	Potential
Southeastern brown bat (<i>Myotis austroriparius</i>)	C2	-	in Florida, primarily a cave dwelling bat	panhandle south through peninsula to Manatee County			Not expected **	Confirmed	Not expected
St. Andrew beach mouse (<i>Peromyscus polionotus peninsulae</i>)	C2	E	coastal beach dunes	currently on the St. Joseph peninsula and Tyndall Air Force Base			Not expected	Not expected	Potential
West Indian manatee (<i>Trichechus manatus</i>)	E	E	coastal, estuarine and some riverine habitats	coastal and major inland waterways in peninsula			Not expected	Not expected	Confirmed
Invertebrates (Molluscs)				Yellow and Escambia drainages in western panhandle			Potential to occur downstream of FMO	Not expected	Not expected
Narrow pigtoe (<i>Fusconaia escambia</i>)	C2	-	riverine in muddy sand in slight current						

Table G-1. Continued.

Animal Name	Federal Status ²	State Status ³	Habitat	Distribution in Florida			Status on Surface Tracts and High Potential Federal Mineral Ownership		
				Oil & Gas	Limestone	Phosphate	Surface Tracts		
Invertebrates (Insects)									
American sand burrowing mayfly (<i>Dolania americana</i>)	C2	-	NA	NA			Confirmed	Not expected	Not expected
Blackwater sand-filtering mayfly (<i>Mesoneuria doneni</i>)	C2	-	NA	NA			Confirmed	Not expected	Not expected
Say's Spiketail (<i>Cordulegaster sayi</i>)	C2	-	NA	NA			Confirmed	Not expected	Not expected
Zigzag Black River Caddisfly (<i>Agarodes zigzag</i>)	C2	-	NA	NA			Confirmed	Not expected	Not expected

* These species are discussed generally under wading birds.

** Not applicable in Baker and Columbus counties and Apalachicola National Forest.

*** No maternity caves have been identified.

1. Wildlife species considered but dropped from further analysis.

-Blackmouth shiner (*Notropis melanotomus*), crystal darter (*Ammocrypta espeilla*), harlequin darter (*Etheostoma histrio*), Okaloosa darter (*Etheostoma okaloosa*), and saltmarsh topminnow (*Fundulus jenkinsi*): all of these fish have potential to occur on FMO in the panhandle, but are not known to occur in the Blackwater River State Forest, where mineral development is reasonably foreseeable. Standard management common to all alternatives include drill pad berms and a 300-foot setback from all rivers and streams. These conditions are expected to alleviate any potential impacts to these downstream fishes.

- Atlantic green sea turtle (*Chelonia mydas*) has been recorded on Eglin Air Force Base, however it is not likely to be affected by actions taken on the four small BLM beachfront tracts.

- Arctic peregrine falcon (*Falco peregrinus tundrius*) has potential to occur on surface tracts or FMO throughout Florida. However, no actions are anticipated that would adversely affect this wintering population.

- Brown pelican (*Pelecanus occidentalis*) could occur on all of the BLM beachfront tracts. However, use in these areas is expected to be largely limited to offshore fishing. None of the alternatives is expected to adversely affect this species.

Table G-1. Concluded.

- Least tern (*Sterna antillarum*) may loaf and forage in the vicinity of the BLM beachfront tracts, but no nesting has been recorded. None of the alternatives are expected to significantly alter use pattern of this species.
- Florida panther (*Felis concolor coryi*) has potential to occur on FMO with high potential for oil and gas development in southern Florida. However, no mineral development is expected to occur on the few FMO tracts in this area.
- Key deer (*Odocoileus virginianus clavium*) are found on portions of Sugarloaf Key, however, no deer have been recorded near the Sugarloaf Key surfact tracts for over 10 years, according to manager of the Key Deer National Wildlife Refuge. It is unlikely that actions taken on these two tracts will affect key deer.
- Perdido Key beach mouse (*Peromyscus polionotus trisyllabis*) and Choctawhatchee beach mouse (*Peromyscus polionotus allophrys*) are expected to occur on FMO. Portions of federally designated critical habitat for these beach mice are located on FMO. However, no mineral development is expected in these areas.
- Narrow pigtoe mussel (*Fusconaia escambia*) has potential to occur downstream of the Blackwater River State Forest, but standard management common to all alternatives, including drill pad berms and a 300-foot setback from rivers and streams, is not expected to impact this species.

- American sand-burying mayfly (*Dolania americana*), Blackwater sand-filtering mayfly (*Homeoneuria doleni*), Say's spiketail dragonfly (*Cordulegaster sayi*), and zigzag blackwater caddisfly (*Agyrodes ziczac*) occur on the Blackwater River State Forest. However, standard management common to all alternatives, including drill pad berms and a 300-foot setback from rivers and streams, is not expected to impact these species.

2. Federal status abbreviations:

- | | |
|---------|--|
| E | - Endangered |
| T | - Threatened |
| T (S/A) | - Threatened due to similarity of appearance. |
| C1 | - A candidate for federal listing for which there is enough substantial information on biological vulnerability and threats to justify listing. |
| C2 | - A candidate for federal listing for which there is enough substantial information on biological vulnerability, but for which not enough information exists to justify listing. |

3. State status abbreviations:

- | | |
|-----|------------------------------|
| E | - Endangered |
| T | - Threatened |
| SSC | - Species of Special Concern |

Table G-2. Plant Species Considered for Analysis

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high-potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
A. wild cocoa (<i>Pteroglossaspis cristata</i>)	C2	T	pine rockland, upland hardwood forest, scrubby flatwoods, mesic flatwoods (on moist sandy soils)	ALAC, BAKE, CITR, DADE, FLAG, HARD, HIGH, HILL, LIBE, HARI, HART, SARA, SEMI, STJO, WAKU	Not expected	Potential	Not expected	Not expected
Apalachicola rosemary (<i>Conradina glabra</i>)	E	T	sandhill, longleaf pine/wire grass	LIBE, SANTA ¹	Confirmed	Not expected	Not expected	Not expected
Auricled spleenwort (<i>Asplenium auritum</i>)	-	E	slough, hydric hammock (epiphytic on trees)	CITR, COLL, DADE, HERN, HIGH, HILL, PASC, SUMT, VOLU	Not expected	Confirmed	Not expected	Not expected
Baltzell's sedge (<i>Carex baltzelli</i>)	C/2	E	slope forest (moist sandy loams)	BAY, CALH, ESCA, GADS, LIBE, OKAL, SANT, WALT, WASH	Potential	Not expected	Not expected	Not expected
Beach jacquemontia (<i>Jacquemontia declinata</i>)	E	E	beach dunes and coastal strand openings	BROW, DADE, PALM	Not expected	Not expected	Not expected	Confirmed
Bog-button (<i>Lachnocaulon digynum</i>)	C2	-	exposed sands on seepage slopes, wet flatwoods, bog	BAY, ESCA, LIBE, OKAL, SANT	Confirmed	Not expected	Not expected	Not expected
Brooksville bellflower (<i>Campanula robiniaeae</i>)	E	E	wet prairie, along edges of ponds, seepage slopes	HERN	Not expected	Potential	Not expected	Not expected
Chapman's butterwort (<i>Pinguicula planifolia</i>)	C2	E	wet flatwoods, seepage slopes, bogs, in ditches	BAY, CALH, ESCA, FRAN, GULF, JACK, LIBE, SANT, WALT, WASH	Confirmed	Not expected	Not expected	Not expected

¹Final results on the taxonomic work on the Blackwater population is not complete. This population may be reclassified as the more common (*Contradina canescens*).

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution		Status on surface tracts and high potential federal mineral ownership		
				Oil & Gas	Limestone	Phosphate	Surface Tracts	
Cooley's water-will <i>Justicia cooleyi</i>	E	T	upland mixed forest	HERN, LAKE, SUMT	Not expected	Not expected	Not expected	Not expected
Craighead's nodding caps (<i>Triphora craigheadii</i>)	C2	T	upland hardwood forest, surfaces of rotting logs and shaded rock outcrops	CITR, HERN	Not expected	Potential	Not expected	Not expected
Cruise's golden aster (<i>Chrysopsis grossypina cruiseana</i>)	C2	E	coastal strand and grassland, particularly blowouts and openings	ESCA, OKAL, SANT, WALT	Not expected	Not expected	Not expected	Confirmed
Curtis sandgrass (<i>Calamovilia curtissii</i>)	C/2	E	mesic and wet flatwoods depression marshes wet prairies	BAY, BREV, OKAL, SANT, WALT, DUVU	Potential	Not expected	Not expected	Not expected
Curtiss' milkweed (<i>Asclepias curtissii</i>)	-	E	scrub, scrubby flatwoods, xeric hammock	BREV, BROW, CHAR, CLAY, COLL, DESO, ESCA, HARD, HERN, HIGH, HILL, INDI, LAKE, LEE, MANA, MARL, MART, ORAN, OSCE, PALM, PINE, POLK, PUTN, STLU	Potential	Not expected	Not expected	Not expected
Downy shield fern (<i>Thelypteris dentata</i>)	-	T	moist hammocks	-	Not expected	Potential	Potential	Not expected
Drummond's yellow-eyed grass (<i>Xyris drummondii</i>)	C2	-	wet flatwoods, bog, seepage slopes, ditches	BAY, ESCA, GULF, LIBE, SANT	Potential	Not expected	Not expected	Not expected
Dwarf spleenwort (<i>Aplectrum auritum</i>)	-	E	upland mixed forest, hydric hammock (on limestone)	ALAC, CITR, HERN, MARI	Not expected	Potential	Not expected	Not expected
Ebony spleenwort (<i>Asplenium platyneuron</i>)	-	T	hammocks	-	Not expected	Potential	Potential	Not expected
Florida anise (<i>Milium floridanum</i>)	-	T	slope forest, flood plain forest, baygall and seepage stream banks	BAY, CALH, ESCA, GADS, JACK, LIBE, OKAL, SANT, WAKU, WASH, WALT	Confirmed	Not expected	Not expected	Not expected

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution		Status on surface tracts and high potential federal mineral ownership			
				Oil & Gas	Limestone	Phosphate	Surface Tracts		
Florida pondweed (<i>Potamogeton floridanus</i>)	C2	-	endemic to Blackwater River	SANT,OKAL				Not expected	Not expected
Florida spiny-pod (milkweed) (<i>Matelea floridana</i>)	C2	E	upland mixed forest, upland hardwood forest	ALAC,BARD,CITR,CLAY, COLU,DUVA,HERN,JACK, LAKE,LEVY,LIBE,MARI, ORAN,VOLU		Not expected	Potential	Not expected	Not expected
Four-petal paw-paw (<i>Aristothele tetramera</i>)	E	E	scrub or ecotones with scrubby flatwoods	MART,PALM		Not expected	Potential	Not expected	Confirmed
Fuzzy-wuzzy air-plant (<i>Tillandsia pruinosa</i>)	-	E	epiphytic in strand swamps	COLL		Potential	Not expected	Not expected	Not expected
Godfrey's butterwort (<i>Pinguicula ionantha</i>)	T	E	wet flatwoods, bogs, seepage slopes, in shallow water	BAY,FRAN,GULF,LIBE		Not expected	Not expected	Not expected	Potential
Godfrey's golden aster (<i>Chrysopsis godfreyi</i>)	C2	-	coastal grassland, beach dune	BAY,ESCA,OKAL,SANT, WALT		Potential	Not expected	Not expected	Not expected
Golden polypody (<i>Phlebodium aureum</i>)	-	T	hammocks, often epiphytic on cabbage palms	-		Not expected	Potential	Potential	Confirmed
Green ladies'-tresses (<i>Spiranthes polyantha</i>)	C2	E	rockland hammock, upland mixed forest (over limestone)	CITR,DADE,DUVA,HERN, MART,STJO		Not expected	Potential	Not expected	Not expected
Gulf coast lupine (<i>Lupinus westianus</i>)	C2	T	beach dune, scrub, disturbed areas	BAY,ESCA,FRAN,GULF, OKAL,SANT,WALT,WASH		Potential	Not expected	Not expected	Not expected
Hairy-peduncled beak-rush (<i>Rhynchospora crinipes</i>)	C2	-	blackwater stream shelves and sandy banks	SANT		Potential	Not expected	Not expected	Not expected

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Hairy wild indigo (<i>Baptisia hirsuta</i>)	C/2	T	sandhill, mesic flatwoods scrubby flatwoods	HOLM,OKAL,SANT,WALT	Potential	Not expected	Not expected	Not expected
Harper's yellow-eyed grass (<i>Xyris scabifolia</i>)	C2	T	seepage slope, wet prairie, bog	BAY,CALH,ESCA,GULF,LIBE	Confirmed	Not expected	Not expected	Not expected
Heartleaf (<i>Hexastylis arifolia</i>)	-	T	slope forest, seepage stream banks	ESCA,JEFF,LEON,LIBE, SANT,WALT,WASH	Potential	Not expected	Not expected	Not expected
Hummingbird flower (<i>Macranthera flammee</i>)	-	E	seepage slope and stream banks, flood plain swamp	BAY,CALH,ESCA,FRAN, JACK,JEON,LIBE,OKAL, SANT,WALT	Confirmed	Not expected	Not expected	Not expected
Incised groove-bur (<i>Agrimonia incisa</i>)	C2	-	sandhill, upland pine forest, edges of upland hardwood forest	ALAC,CITR,COLU,DIXI, DUVA,GADS,GILC,HERN, JACK,MADI,MARI,POLK, SUWA,WAKU,WASH	Not expected	Confirmed	Not expected	Not expected
Joeweed (<i>Jacquinia keyensis</i>)	-	T	coastal strand, coastal grassland, coastal rocklands	DADE,LEE,MONR	Potential	Not expected	Not expected	Not expected
Large-flowered rosemary (<i>Conradina grandiflora</i>)	C2	E	scrub and coastal strand	BREV,BROW,INDI,MART,OS CE,PALM,STLU,VOLU	Not expected	Not expected	Not expected	Confirmed
Large-leaved jointweed (<i>Polygonella macrophylla</i>)	C1	T	scrub	BAY,ESCA,GADS,OKAL, SANT,WAKU,WALT	Confirmed	Not expected	Not expected	Not expected
Mountain laurel (<i>Kalmia latifolia</i>)	-	T	slope forest, seepage stream banks	BAY,CALH,ESCA,GADS, HOLM,LEON,LIBE,OKAL, SANT,WALT,WASH	Potential	Not expected	Not expected	Not expected
Netted chain fern (<i>Woodwardia areolata</i>)	-	T	swamps and wet woods	-	Not expected	Potential	Potential	Not expected

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Hairy wild indigo (<i>Baptisia hirsuta</i>)	C2	T	sandhill, mosaic flatwoods scrubby flatwoods	HOLM,OKAL,SANT,WALT	Potential	Not expected	Not expected	Not expected
Harper's yellow-eyed grass (<i>Xyris scabridifolia</i>)	C2	T	seepage slope, wet prairie, bog	BAY,CALH,ESCA,GULF,LIBE	Confirmed	Not expected	Not expected	Not expected
Heartleaf (<i>Hexastylis arifolia</i>)	-	T	slope forest, seepage stream banks	ESCA,JEFF,LEON,LIBE, SANT,WALT,WASH	Potential	Not expected	Not expected	Not expected
Hummingbird flower (<i>Macranthera flammee</i>)	-	E	seepage slope and stream banks, flood plain swamp	BAY,CALH,ESCA,FRAN, JACK,LEON,LIBE,OKAL, SANT,WALT	Confirmed	Not expected	Not expected	Not expected
Incised groove-bur (<i>Agrimonia incisa</i>)	C2	-	sandhill, upland pine forest, edges of upland hardwood forest	ALAC,CITR,COLU,DIXI, DUVA,GADS,GILC,HERN, JACK,MADI,MAR,POLK, SUWA,WAKU,WASH	Not expected	Confirmed	Not expected	Not expected
Joeweed (<i>Jacquinia keyensis</i>)	-	T	coastal strand, coastal grassland, coastal rocklands	DADE,LEE,MONR	Potential	Not expected	Not expected	Not expected
Large-flowered rosemary (<i>Conradina grandiflora</i>)	C2	E	scrub and coastal strand	BREV,BROW,INDI,MART,OS CE,PALM,STLU,VOLU	Not expected	Not expected	Not expected	Confirmed
Large-leaved jointweed (<i>Polygonella macrophylla</i>)	C1	T	scrub	BAY,ESCA,GADS,OKAL, SANT,WAKU,WALT	Confirmed	Not expected	Not expected	Not expected
Mountain laurel (<i>Kalmia latifolia</i>)	-	T	slope forest, seepage stream banks	BAY,CALH,ESCA,GADS, HOLM,LEON,LIBE,OKAL, SANT,WALT,WASH	Potential	Not expected	Not expected	Not expected
Netted chain fern (<i>Woodardia areofolia</i>)	-	T	swamps and wet woods	-	Not expected	Potential	Potential	Not expected

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Nodding pinweed (<i>Lechea cernua</i>)	C2	E	scrub	BREV,BROW,COLL,HARD, HERN,HIGH,HILL,INDILEE, MAMA,MART,OSCE,PALM, PINE,POLK,SEMI,STLU,	Not expected	Not expected	Confirmed	Not expected
Orange azalea (<i>Rhododendron austrinum</i>)	-	E	slope forest, upland mixed forest, bottomland forest, seepage slope banks	CALH,ESCA,GADS,HOLM, JACK,LEON,LIBE,OKAL, SANT,WALT,WASH	Confirmed	Not expected	Not expected	Not expected
Panhandle lily (<i>Lilium iridollae</i>)	C2	E	baygall, seepage slopes, blackwater stream banks	ESCA,OKAL,SANT,WALT	Confirmed	Not expected	Not expected	Not expected
Panhandle meadowbeauty (<i>Rhexia salicifolia</i>)	C2	-	shallow water in sandhill upland lakes	BAY,LEON,WAKU,WALT, WASH	Potential	Not expected	Not expected	Not expected
Piedmont water-milfoil (<i>Myriophyllum laxum</i>)	C2	-	flood plain swamp, upland sandhill lake, blackwater stream, ditches	ESCA,FRAN,GULF,JACK, LEON,LIBE,OSCE,PASC, PUTN,SANT,WALT	Potential	Not expected	Not expected	Not expected
Pigmy-pipes (<i>Monotropa reynoldsiae</i>)	C2	E	upland hardwood forest (parasitic often under dogwood <i>Cornus florida</i>)	BREV,HERN,MARI,STJO, VOLU	Not expected	Potential	Not expected	Not expected
Pineeland hoary-pea (<i>Tephrosia mohrii</i>)	C2	-	sandhill	OKAL,WALT	Potential	Not expected	Not expected	Not expected
Pine pinweed (<i>Lechea divaricata</i>)	C2	E	scrub, scrubby flatwoods	BREV,DADE,HERN,HIGH, HILL,MANA,MART,PALM, PINE,VOLU	Not expected	Not expected	Potential	Confirmed
Pondspice (<i>Litsea aestivalis</i>)	C2	T	hydric hammock, baygall on peaty soils	CLAY,COLU,DIXI,LAFIA, LEVY,MARI,OKAL,PUTN, TAYL	Potential	Not expected	Not expected	Not expected

Table G-2. Continued.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Pyramid magnolia (<i>Magnolia pyramidata</i>)	-	E	slope forest	BAY,CALH,GADS,JACK, LEON,LIBE,OKAL,SANT, WALT,WASH	Potential	Not expected	Not expected	Not expected
Sand spikemoss (<i>Selaginella arenicola</i>)	-	T	dry pinelands, scrub and coastal dunes		Not expected	Not expected	Not expected	Confirmed
Serviceberry holly (<i>Ilex amelanchier</i>)	-	T	flood plain forest, flood plain swamp, seepage stream banks	ESCA,HOLM,JACK,LIBE, SANT,	Potential	Not expected	Not expected	Not expected
Silky camellia (<i>Stewartia malacodendron</i>)	-	E	slope forest, upland mixed forest baygall (acid soils)	BAY,CALH,ESCA,GADS, LIBE,OKAL,SANT,WALT, WASH	Potential	Not expected	Not expected	Not expected
Sinkhole fern (<i>Blachniumpauperae</i>)	-	E	slope forest (thin soil over limestone)	ALAC,CITR,HERN,PASC	Not expected	Potential	Not expected	Not expected
Southern lip fern (<i>Cheilanthes microphylla</i>)	-	E	upland mixed forest, shell mound, rockland hammock (on limestone)	ALAC,CITR,COLL,DADE, DUVA,LEE,MONR,WASH	Not expected	Potential	Not expected	Not expected
Southern red lily (<i>Lilium catesbeianum</i>)	-	T	mesic flatwoods, wet prairie wet flatwoods, seepage slopes (usually with grasses)	State-wide except for extreme southern Florida (MONR,DADE,BROW counties).	Confirmed	Not expected	Not expected	Not expected
Spiny hackberry (<i>Celtis pallida</i>)	-	E	shell mound, maritime hammock	LEE	Potential	Not expected	Not expected	Not expected
Spoon-leaved sundew (<i>Drosera intermedia</i>)	-	T	seepage slopes and stream banks, wet flatwoods and ditches	BAY,CALH,ESCA,FRAN, HIGH,LEON,LEVY,MARI, OKAL,PUTN,SANT,WALT	Confirmed	Not expected	Not expected	Not expected

Table G-2. Concluded.

Plant Name	Federal Status	State Status	Habitat	Confirmed County Distribution	Status on surface tracts and high potential federal mineral ownership			
					Oil & Gas	Limestone	Phosphate	Surface Tracts
Sweet pitcher-plant (<i>Sarracenia rubra</i>)	C2	E	wet prairie, bog, seepage slope and stream banks, wet flatwoods	ESCA,OKAL,SANT,WALT	Confirmed	Not expected	Not expected	Not expected
Telephus spurge (<i>Euphorbia telephoides</i>)	E	T	mesic flatwoods, particularly disturbed wiregrass areas	BAY,FRAN,GULF	Not expected	Not expected	Not expected	Potential
Terrestrial peperomia (<i>Peperomia humilis</i>)	-	E	maritime hammock, upland hardwood forest, slough, hydric hammock, tidal swamps (rarely epiphytic; usually on thin humus over calcareous substrate)	BREV,CITR,COLL,DADE,DUVA,MART,MONR,ORAN,STJO,SUMT,VOLU	Not expected	Potential	Not expected	Not expected
Trelling arbutus (<i>Epigaea repens</i>)	-	E	bluff, slope forest, mixed hardwood forest	ESCA,GADS,LIBE,OKAL,SANT	Potential	Not expected	Not expected	Not expected
Twistspine prickly pear cactus (<i>Opuntia compressa</i>)	-	T	scrub, pinelands		Not expected	Not expected	Not expected	Confirmed
White birds-in-a-nest (<i>Macbridea alba</i>)	E	T	mesic flatwoods, seepage slopes	BAY,FRAN,GULF,LIBE	Not expected	Not expected	Not expected	Potential
White-top pitcher-plant (<i>Sarracenia leucophylla</i>)	C2	E	wet prairie, bog, seepage slope and stream banks, wet flatwoods	BAY,CALH,ESCA,FRAN,GULF,HOLM,LIBE,OKAL,SANT,WALT	Confirmed	Not expected	Not expected	Not expected
Wild pine (<i>Tillandsia bulbifera</i>)	-	T	pinelands, hammocks and scrub		Not expected	Not expected	Not expected	Confirmed
Yellow fringed orchid (<i>Plethandra integrifolia</i>)	-	T	mesic flatwoods, wet prairie, seepage slope	BAY,ESCA,FRAN,GULF,JACK,LIBE,NASS,OKAL,ORAN,OSCE,SANT,WAKU,WALT,WASH	Confirmed	Not expected	Not expected	Not expected

